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**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL SEARCH REPORT**

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 91557-76915	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. PCT/US00/15243	International filing date (day/month/year) 02 JUNE 2000	(Earliest) Priority Date (day/month/year) 04 JUNE 1999
Applicant THE BOARD OF REGENTS THE UNIVERSITY OF TEXAS		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:
  - contained in the international application in written form.
  - filed together with the international application in computer readable form.
  - furnished subsequently to this Authority in written form.
  - furnished subsequently to this Authority in computer readable form.
  - the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
  - the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
- 2.  Certain claims were found unsearchable (See Box I).
- 3.  Unity of invention is lacking (See Box II).
- 4. With regard to the title,
  - the text is approved as submitted by the applicant.
  - the text has been established by this Authority to read as follows:

**5. With regard to the abstract,**

- the text is approved as submitted by the applicant.
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

**6. The figure of the drawings to be published with the abstract is Figure No. 1**

- as suggested by the applicant.
- because the applicant failed to suggest a figure.
- because this figure better characterizes the invention.

None of the figures.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/15243

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :Please See Extra Sheet.

US CL :Please See Extra Sheet.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/44; 435/6, 91.1, 91.31, 91.5, 455, 366, 375; 536/ 23.1, 24.5, 25.3

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Dialog, West

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KLEFSTROM et al. C-Myc induces cellular susceptibility to the cytotoxic action of TNF-alpha. The EMBO Journal. 1994, Vol. 13, No. 22, pp. 5442-5450, entire text, especially section entitled :Inhibition of TNF and cMyc-induced apoptosis by Bcl2 and MnSOD", pages 5444-5445.	1-22
A	TURLEY et al. Vitamin E succinate induces Fas-mediated apoptosis in estrogen receptor-negative human breast cancer cells. Cancer Research. 1997, Vol. 57, pp 881-890, see especially last paragraph of intro on page 881 and discussion on pages 887-888.	1-22

 Further documents are listed in the continuation of Box C.

See patent family annex.

• Special categories of cited documents:		
•A" document defining the general state of the art which is not considered to be of particular relevance	•T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
•B" earlier document published on or after the international filing date	•X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
•L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	•Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
•O" document referring to an oral disclosure, use, exhibition or other means	•A"	document member of the same patent family
•P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

11 SEPTEMBER 2000

Date of mailing of the international search report

01 OCT 2000

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
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**INTERNATIONAL SEARCH REPORT**

International application No.  
PCT/US00/15243

**C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	WO 99/54459 A2 (RIBOZYME PHARMACEUTICALS, INC.) 28 October 1999 (28.10.99), page 23, line 29-page 27, line 17 and figure 17).	1, 6
Y	MILNER et al. Selecting effective antisense reagents on combinatorial oligonucleotide arrays. Nature Biotech., 1997, Vol. 15, pp 537-541, see entire text.	1-22
Y	JAMES, W. Towards gene-inhibition therapy: a review of progress and prospects in the field of antiviral antisense nucleic acids ribozymes. Antiviral Chem. and Chemotherapy, 1991, Vol. 2, No. 4, pp 191-214, see especially pages 197-198.	1-22

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US00/15243

**A. CLASSIFICATION OF SUBJECT MATTER:**  
IPC (7):

**A01N 43/04; A61K 31/70; C12Q 1/68; C12P 19/34; C07H 21/02, 21/04, 21/00**

**A. CLASSIFICATION OF SUBJECT MATTER:**  
US CL :

**514/44; 435/6, 91.1, 91.31, 91.5, 455, 366, 375; 536/ 23.1, 24.5, 25.3**

## NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under Article 19. The Notes are based on the requirements of the Patent Cooperation Treaty and of the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule" and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

### INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be examined during the international preliminary examination, there is usually no need to file amendments to the claims under Article 19 except where, e.g. the applicant wants the letter to be published for the purpose of potential protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

#### What parts of the international application may be amended?

The claims only.

The description and the drawings may only be amended during international preliminary examination under Chapter II.

#### When?

Within 2 months from the date of transmission of the international search report or 30 months from the priority date, whichever date first expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparation for international publication (Rule 46.1).

#### Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been filed, see below.

#### How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or cancellation, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be numbered consecutively (Administrative Instructions, Section 205(b)).

#### What documents may accompany the amendments?

Letter (Section 245(b)).

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.